



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
ONE CONGRESS STREET SUITE 1100 (Mail Code RAA)  
BOSTON, MASSACHUSETTS 02114-2023**

November 8, 2001

Brian E. Osterndorf, Colonel  
District Engineer  
New England District  
U.S. Army Corps of Engineers  
696 Virginia Road  
Concord, Massachusetts 01742-2751

Dear Colonel Osterndorf:

Thank you for the copy of your September 17, 2001 letter regarding the Corps' initial determination of the least environmentally damaging practicable alternative ("LEDPA") in keeping with the New England District's highway methodology. The letter followed five sessions held by the interagency work group (a.k.a. the "streamlining committee") during the summer, and the September 4, 2001 meeting of the Southeastern Connecticut Council of Governments in Norwich, which we both attended. While we do not agree with all aspects of the Corps' letter, we appreciate the care you and your staff have taken to coordinate with us during the past few months and look forward to continuing our work together as we move ahead with the regulatory and environmental review of the Route 11 project. At this juncture it might be helpful to review where EPA stands with respect to some of the key issues involved with this case, indicate areas where we believe further work is warranted and outline directions the regulatory process may take from this point.

As you know, EPA has repeatedly expressed serious concerns about the significant adverse environmental impacts of the Route 11 proposal, the fact that less damaging approaches to address the project purpose are not being pursued, and the difficulty of developing effective and permanent mitigation measures. EPA's reviews to date have led the agency to conclude that the Route 11 proposal, at least as currently formulated,<sup>1</sup> would not comply with the §404(b)(1) guidelines because it would cause significant and potentially avoidable adverse impacts, and therefore should be ineligible to receive a Clean Water Act permit. EPA also had identified the Route 11 case as a candidate for review under its §404(c) authority. We discussed the bases for these conclusions in letters of May 21, 1999 and April 20, 2001, and need not repeat them here.

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<sup>1</sup>For purposes of this letter, the Route 11 proposal refers to a proposed highway on new alignment including Alternative E4m and its variants, V1 and V3.

As the NEPA and §404 process moves ahead, it will be important to ensure that a complete and accurate record exists for evaluation by both agency decision makers and the public. This will not only improve prospects for better regulatory decisions but also help prevent problems which could arise from deficiencies in the record. To that end, we wish to identify remaining issues which we believe need further work during the coming months. The following is a summary of those issues, related to the evaluation of alternatives and the development of mitigation proposals.

With regard to the evaluation of alternatives, we recognize that the Connecticut Department of Transportation (“CTDOT”), the Federal Highway Administration (“FHWA”), and the Corps have all spent time exploring upgrade concepts. Nevertheless, we believe several important issues have not been fully addressed. We intend to discuss these issues with the transportation agencies in the near future. The areas we believe should be considered more completely include:

◆ *Update and improve traffic data where possible.* FHWA and CTDOT, responding to public concerns, recently incorporated new direct traffic count data for the Route 2/2A/32 project. These data resulted in a downward adjustment in traffic projections for that corridor. Since Route 2 traffic volumes were relied upon to estimate summer conditions for Route 82/85/11, we believe those summer projections should be updated to reflect the newer Route 2 data.

EPA is disappointed that FHWA and CTDOT chose to ignore EPA’s request that actual traffic counts be conducted in the Route 82/85/11 corridor in the summer (we made this specific request in our April 20, 2001 letter). According to the DEIS, traffic counts in the nearby Route 2/2A corridor were used as the basis for extrapolating summer weekend conditions, which appear to be the “worst case scenario” for the Route 82/85 corridor. While we understand the use of analogous road systems for traffic modeling, we are concerned that the Route 2/2A corridor is a more heavily traveled road system which may not accurately reflect conditions in the Route 82/85 corridor.

◆ *Present level of service (LOS) and volume to capacity (V/C) ratio information.* We believe it would be useful if the LOS and V/C data were presented for the subsegments between key intersections such as those which exhibit the greatest safety and capacity deficiencies. (The Route 2/2A/32 DEIS provides a good example of this type of documentation for a Connecticut highway project.)

◆ *Analyze the aggregate effect of combining all reasonable roadway improvements.* The data developed thus far suggest that both capacity and safety problems on the existing road may be localized, perhaps at specific intersections or other discrete trouble spots. We recommend an evaluation of the effect of all intersection and road improvements (e.g., turning lanes, optimizing signals, improved road geometry and other

TSM measures) being applied concurrently throughout the corridor to see if such an approach would provide meaningful improvements to safety and capacity.<sup>2</sup>

◆ *Present a comparative evaluation of potential accident rates and severity.* As you know, the need for improved highway safety was emphasized by local officials at the September 4<sup>th</sup> meeting. We continue to seek a specific evaluation of potential accident rates and severity that would result on a new freeway. We also seek a comparison of the potential accident rates and severity on a new freeway combined with the potential accident rates and severity on the existing roads once the freeway is built, to the potential accident rates and severity of an upgraded Route 82 and 85.

◆ *Present more complete information on project benefits and needs.* Better explain state-wide and regional benefit/need for a Route 11 highway extension, addressing economic development, transportation, emergency response, etc.

Any highway on a new alignment in this corridor raises a number of important mitigation issues. We reiterate that the project would cause significant adverse impacts to the aquatic environment. In keeping with the approach both of our agencies have adopted for other projects which cause significant impacts, mitigation for the Route 11 proposal would need to meet two key standards. First, the mitigation must incorporate all appropriate and practicable steps to lessen and compensate for impacts as required for all permit cases. Second, the mitigation must prevent or offset enough environmental damage so the impacts of the project are no longer significant (i.e., be able to achieve compliance with §230.10(c) of the guidelines). Where, as here, the proposal involves severe impacts to high quality resources, including difficult to mitigate indirect effects, the project proponents face a formidable task. The challenge for the applicant will be to develop an approach which would compensate sufficiently for the lost and damaged aquatic resources and be reasonably assured of success – the bases for a credible finding that the adverse impacts are no longer significant.

While we expect the discussion of mitigation to be an iterative one which becomes more specific during the coming months, we would like to highlight several areas for further work and future discussion:

◆ *An accurate tally of all direct impacts.* Not all of the impacts for a highway on new alignment have been sufficiently determined – the planned interchanges at Route 161 and

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<sup>2</sup> Evaluations of this type have contributed in a number of cases regionally and nationally to improving existing roads as a practicable means of addressing safety and capacity concerns. And within Connecticut, for example, upgrades to Routes 2/2A/32 and Route 6 (Brooklyn section) were selected to improve safety and capacity. Indeed, the portion of Route 85 south of I-395 was upgraded several years ago.

I-95 have yet to be designed conceptually, so a reasonable estimate of the direct impacts to wetlands and other waters has not yet been made.

◆ *Conduct appropriate wildlife field surveys.* As we have stated in earlier comments, we believe it is essential that a corridor-wide wildlife survey be undertaken to document properly the wide variety of species present in the study area. This will be important for understanding the full extent of impacts from the road and to determine the appropriate target species for mitigation measures. Moreover, mitigating adverse impacts to animal movement requires field surveys to determine the daily and seasonal movement patterns and preferences of the target species in order to properly locate physical structures such as overpasses and underpasses. If these surveys are initiated soon, they can be completed within a reasonable timeframe which will not cause a delay in the project schedule.

◆ *A realistic projection of likely secondary impacts.* In order to inform development of the compensatory mitigation measures, especially those related to land protection, a projection of likely secondary impacts (i.e., those additional direct and indirect impacts to aquatic resources which would arise or be accelerated by the presence of the highway) should be made.

◆ *Development of measures to minimize adverse impact.* Mitigation for the significant adverse effects of a new highway needs to begin with an aggressive effort to minimize the adverse impacts through a variety of carefully developed design features intended to reduce direct and indirect impacts. An especially concerted effort to minimize impacts should be undertaken in habitat blocks #1 and #2. Direct impacts may be reduced by slight shifts in alignment to reduce filling of aquatic resources, adding bridges and oversized culverts, increasing the span of bridges to allow movement of wildlife that are water resource dependent, reducing median widths and steepening side slopes. Indirect impacts are more difficult to minimize but would be best attempted by increasing the permeability of the road to wildlife through strategically placed overpasses and underpasses for animal movement. In some cases, efforts to reduce direct and indirect impacts may work at cross purposes and would need to be reconciled.

◆ *Details of the Greenway proposal.* At the September 4, 2001 meeting, Congressman Simmons and local officials emphasized that the Greenway is an important part of the mitigation package for the proposed highway. We recognize that the Greenway Commission is in the early stages of its formation. In order for Greenway lands to be considered as part of any mitigation package, we soon will need pertinent information such as: the precise location of the Greenway; the time frame for completion; the types of land uses that would be permitted; how property will be acquired if there are unwilling sellers; and source(s) of funding. As these and other details become available, they should be shared.

◆*Current status of land protection measures.* An identification and description of natural resource areas that are currently protected, and such areas which are planned for protection through outright purchase, easements, or other means would help inform the evaluation of a comprehensive mitigation proposal.

◆*Future land use development and protection issues.* We recognize that factors other than the proposed Route 11 project may have a greater affect on the long-term health of the natural resources in the project area. It would be beneficial to the planning process and any final mitigation package to a) see likely build out scenarios for the surrounding towns both with and without the highway so that long range future growth and development effects can be analyzed, and b) develop specific criteria to identify areas for protection. General considerations with respect to the second issue include: areas which will benefit the wildlife populations which would be adversely affected by a new highway (including from development that might be catalyzed by a new road); parcels of high resource value; natural resources at risk from degradation, particularly from unregulated activities; and areas which adjoin or connect to other already protected lands. Use of these and other ecologically based criteria would have significant implications for the shape (both conceptually and literally) of a land protection plan. For example, land immediately adjacent to a new limited access highway may not be a high priority for protection since such areas would be of diminished value and reduced risk for development (except near interchanges). In any event, to qualify as an useful component of an overall mitigation plan, it is essential that the land protection measures ensure effective and permanent protection of the resource and be in place before any activity regulated under the §404 permit begins.

Where EPA believes issuance of a §404 permit could result in certain types of unacceptable adverse impacts to the aquatic environment, the Agency has the authority to conduct its own evaluation pursuant to the §404(c) procedures. Were such a review undertaken, the outcome could prevent issuance of a permit or allow it to be issued subject to restrictions intended to prevent unacceptable adverse impacts from occurring. In determining whether or not such a review is appropriate in the Route 11 case, we intend to focus on several considerations:

◆ *Alternatives.*<sup>3</sup> One that merits consideration is a phased approach whereby improvements are made to the existing road network, their efficacy assessed, and the need for a new alignment reconsidered based on agreed upon criteria. If the improvements address the basic project purpose to a sufficient degree, a resolution would be achieved which incurs far less environmental and financial cost. If the reevaluation shows the need for a new road, then the project on new alignment would proceed. Reasonable safety and level of service improvements to the existing roads would, it seems, be worthwhile in any case and the evaluation period could also be used to develop a comprehensive mitigation program in the event that a new highway proves necessary.<sup>4</sup> State and federal environmental and transportation agencies agreed upon a similar approach in the Conway bypass project in New Hampshire and we believe the circumstances here make it a reasonable approach to consider.

◆ *Extent of minimization.* A second consideration will be the extent to which effective measures to minimize impacts become incorporated into any final project design. As noted above, it is essential that such measures be pursued vigorously; the level of effort to minimize impacts should be commensurate with the extraordinary quality of the environmental resources at risk. Particular attention should be directed to achieving a meaningful reduction of impacts in habitat blocks #1 and #2. While we recognize that several legitimate social, engineering and environmental factors complicate efforts to reduce impacts in these blocks, we believe a particularly concerted attempt is warranted given the quality of the resources at risk.

◆ *Extent and value of mitigation measures included as conditions of a §404 permit.* In particular, we plan to assess to what degree any such proposed compensatory mitigation would offset the significant direct, indirect and secondary impacts of the highway project. While we appreciate that a greenway which runs adjacent to the highway may have certain benefits (e.g, a visual and noise buffer), it is unlikely to be particularly effective from an ecological standpoint in offsetting the project's significant impacts unless it were significantly expanded in important areas to (a) link or enlarge existing protected areas and (b) permanently protect large tracts of watershed.

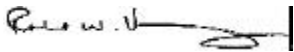
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<sup>3</sup>The Corps recently evaluated the freeway alternatives known as E4m, V1, and V3 and found all three choices to be practicable. In terms of damage to the aquatic environment, the Corps determined E4m to be the most harmful but found no meaningful difference in environmental impact between alternatives V1 and V3 and concluded that either could be considered the LEDPA. EPA continues to believe that an upgrade of the existing road appears practicable and qualifies as the LEDPA. Among the freeway alternatives, we agree that alternative E4m could not be the LEDPA as it would be far more damaging than any of the upgrade options and also would cause greater environmental harm than alternatives V1 and V3. Between alternatives V1 and V3, we believe that alternative V1 would be meaningfully less damaging, especially from a long term perspective, for the same reason that alternative V3 would be less damaging than E4m: it would be further out of habitat block #2.

<sup>4</sup>In fact, we understand that certain improvements to Route 82/85 have been scheduled for some time but have been delayed in moving forward.

We appreciate the efforts of CTDOT, local, regional, and federal officials, and other interests to reduce the impacts of the new highway. In particular, we commend the streamlining committee for working together to find as much common ground as possible. While that process resulted in some improvements to the project from an environmental standpoint, there are many remaining issues which need to be addressed as soon as possible. We hope that additional efforts could lead to a project which we believe would meet regulatory requirements or at the very least reduce the likelihood of a §404(c) review. We look forward to discussing the issues of concerns outlined above as well as other options that may be helpful with you and others involved with the project during the coming months.

Sincerely,

A handwritten signature in black ink, appearing to read "R. W. Varney", followed by a vertical line.

Robert W. Varney  
Regional Administrator

cc:     Congressman Robert Simmons  
          Brad Keazer, FHWA  
          Ned Hurle, CTDOT  
          Art Rocque, CTDEP  
          Mike Bartlett, USFWS